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AUTHOR Faust, John R.
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ABSTRACT

Developed as part of a New Hampshire project entitled "Curriculum Activity Planning for Schools," this guide provides an overview to creating a format and the appropriate components for a competency-based vocational secondary school curriculum. First, the curriculum components are identified, and directions are provided for their development. Divided into the three phases of the curriculum design process, the components are classified as inputs (developing program and needs assessment data statement, establishing job family cluster, and analyzing tasks to create competencies), plan (creating instructional objectives and selecting learning activities and instructional resources), and outputs (developing evaluation techniques and designing effective recordkeeping). For each component two examples are provided except for needs assessment which only requires one example. A checklist of the curriculum components is included at the end for vocational educators to use in assessing their programs. A supplemental document designed to accompany this guide is entitled "How to Develop a Curriculum for Vocational Education--A Manual for New Hampshire's Vocational Educators" (CE 021 832) and provides more detailed information and worksheets for each component. (ELG)

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ESTABLISHING CURRICULUM COMPONENTS

GUIDE

A GUIDE FOR NEW HAMPSHIRE VOCATIONAL EDUCATORS

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CONTRIBUTORS

Project Director

John R. Faust - author

Project Advisor

Richard Monteith
Consultant
Exemplary Programs
State Department of Education

CURRICULUM COMMITTEE

Thomas Besaw	- State Consultant, Distributive and Cooperative Education
Gail Clukay	- Home Economics Instructor, Concord High School
Jean Croteau	- Health Occupation Instructor, Cheshire Vocational Center
Frances Dolloph	- Distributive Education Instructor, Lebanon Vocational Center
Sharon Glasscock	- State Consultant, Home and Consumer Education
Langdon Plumer	- Vocational Director, Exeter Vocational Center
Robert Reynolds	- Electronics Instructor, Nashua Vocational Center
Barbara Rousseau	- Dean of Instruction, NHVTC, Nashua
Brian Titilah	- Vocational Agriculture Instructor, Winnisquam Regional H. S.
Shirley Tweedell	- Office Occupations Instructor, Merrimack Valley H.S.

This document is a product of a Project entitled "Curriculum Activity Planning For Schools."

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Cover and illustrations by Diane Stolar.

FOREWORD
TO GUIDE AND MANUAL

In July of 1977, the Vocational Curriculum Research Office at Keene State College in cooperation with the Vocational-Technical Division of the State Department of Education assembled a committee of New Hampshire Vocational Educators to identify the elements of a good curriculum. The committee, composed of vocational teachers, local administrators at the Secondary or Post-Secondary level and State Vocational Program Consultants, held numerous meetings during 1977-78. The committee concluded that three elements were considered important in developing a good curriculum. These were:

A. Format -The overall scope and sequence of an instructional program or curriculum.
B. Component -The parts that comprise the format.
C. Style -The manner or form in which the format is presented.

Considerable study of all three elements was conducted by the committee. Agreement on format and components was achieved. Style was considered to be an element that each vocational instructor could best determine individually.

Upon agreement of a suggested format and components of a curriculum, the committee discussed the best method of presenting this information to vocational educators. It was recognized that existing curricula of vocational instructors, when related to the suggested format and components, would vary considerably. Many experienced vocational instructors could easily match their curricula to the format and components suggested. Others, possibly those with limited experience, or certainly new instructors, would find the committee's work in establishing a suggested curriculum format and components most useful in improving or establishing a good curriculum.

To accommodate the different levels of curriculum background that may be required by instructors, the committee decided to provide information at two levels. First, a brief booklet entitled, Establishing Curriculum Components, A Guide For New Hampshire Vocational Educators, was developed. The Guide provides an overview to creating a format and the appropriate components for a curriculum. The Guide is recommended for review by all vocational instructors.

Experienced instructors may require only a review of this Guide to determine if their curricula reflects the appropriate format and components.

For those instructors with limited or no experience in curriculum, a second level of information is provided in a more complete booklet entitled, How To Develop A Curriculum For Vocational Education, A Manual For New Hampshire Vocational Educators.

This booklet provides detailed help for any instructor who decides to improve curriculum format or components. All vocational instructors are encouraged to read the Guide. Where the reader requires more information, the Manual should provide further assistance.

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ESTABLISHING CURRICULUM COMPONENTS

A GUIDE FOR NEW HAMPSHIRE

VOCATIONAL EDUCATORS

INTRODUCTION TO GUIDE

In 1974, a study examining the status of curriculum planning and development in established secondary area vocational centers was sponsored by the Vocational-Technical Division of the New Hampshire State Department of Education and conducted by Dr. Richard Gustafson, Associate Dean at Keene State College.

Two stated conclusions of the study were:

> "In the past and to the present, each area vocational center has assumed responsibility for its own curriculum development. In many cases, duplication of efforts from center to center has prevailed."
>
> "Much of what is now called curriculum is the mental or written outline of instruction devised by instructors, proven through trial and error."

Little has been done to correct these problems to date. The causes of duplication and lack of curriculum organization are many. Three of the important reasons seem to be:

> Lack of consensus among vocational educators regarding which components comprise a curriculum.
>
> Lack of a similar form of composition for the components.
>
> Lack of instruction in how to assemble a curriculum.

To provide solutions to these issues, the Vocational-Technical Division of the State Department of Education, in cooperation with the Vocational Curriculum Research Office at Keene State College, assembled a committee of New Hampshire vocational teachers, local administrators at the secondary and post-secondary level, and consultants from the State Department of Education.

The committee studied three elements considered to be important in developing a good curriculum. These were:

A. Format - The overall scope and sequence of an instructional program or curriculum.

B. Components - The parts that comprise the format.

C. Style - The manner or form in which the format is presented.

The Guide that is presented here is the result of that study. The components described in this Guide are recommended as minimum standards for a vocational program curriculum.

If implemented, this Guide should provide all New Hampshire vocational educators with a model for describing classroom and/or laboratory learning environments that will allow for communication among all groups interested in quality vocational instruction.

Every instructor has a curriculum. The issue we are dealing with here is its usefulness. That is, to whom is it useful?
A well-defined curriculum has a number of purposes.

It should:

Be a plan or road map that outlines the student's and instructor's roles in the skill development process.

Communicate to parents, employers, school leadership and the citizenry exactly what can or is to be accomplished in the instructional program.

Accommodate recent changes in the Federal vocational laws that demand detailed reporting of instructional content of reimbursed vocational programs.

Be useful in articulation efforts with other instructors at the secondary or post secondary level in any given instructional program area.

Sound difficult? It is! Most instructors recognize that developing a good curriculum takes time, trial and error and continuous revision. Yes, it may be difficult and time consuming, but it isn't impossible for the vocational instructor who wishes to conduct a successful program.

The Guide you are about to review should enable you to identify the strengths and weaknesses of your instructional program and where improvement is needed. Further, it will provide you with the necessary information to accomplish those improvements.

The producers of this Guide recognize that the users may be vocational instructors with extensive, limited or no experience in vocational curriculum development.

To accommodate the variety of educators using these materials, the Guide is limited to defining each curriculum component and providing simple directions for developing each component. Finally, examples of finished components are provided. Two examples are given in each component with the exception of Needs Assessment, where two would be redundant.

For those instructors with limited or no previous experience in developing vocational curriculum, a supplemental document has been produced. This document, designed to accompany this Guide, is entitled Curriculum - How To Develop It For Vocational Education. A Manual For Vocational Educators.

As you review this Guide you will note that each component has been referenced to the Manual. The footnote references indicate the pages of the Manual that can provide you with supplemental information related to each component. Further, the Manual contains worksheets for each component. These worksheets may aid in developing any component of your program which you feel would improve the existing curriculum.

Each vocational instructor in your center has a copy of this Guide. In addition, your vocational director has a number of copies of a booklet combining this Guide with the more extensive Manual.

If after reading this Guide you find your curriculum is lacking in any of the components; please ask your vocational director for the Guide-Manual Booklet.

ESSENTIAL COMPONENTS OF A COMPETENCY BASED VOCATIONAL CURRICULUM

A competency based vocational curriculum is defined as a total system for planning, developing, implementing and evaluating student learning. It is done to ensure that students acquire measurable skills, knowledge and attitudes essential for successful job performance. It also provides vocational instructors with the classroom or lab management plan to direct student learning.

A curriculum design process has three phases.

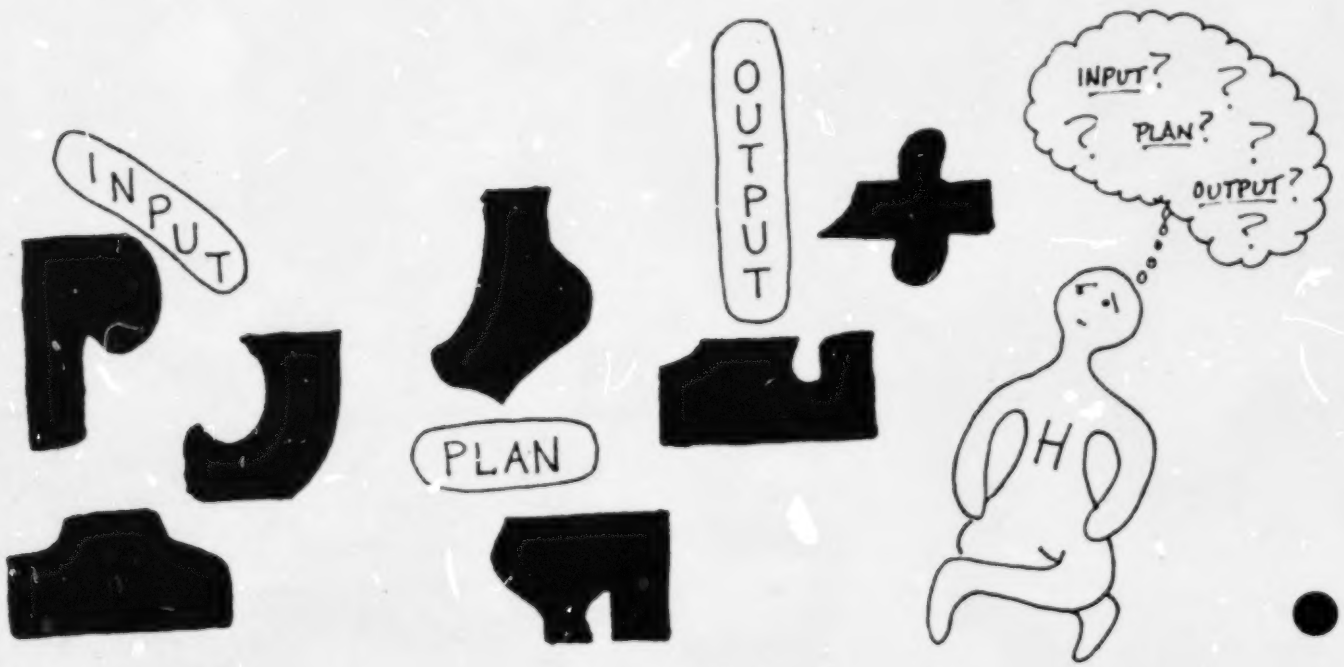
Phase I -Gathering Information Needed Prior To Constructing The Curriculum (Inputs)
Phase II -Constructing The Curriculum (Plan)
Phase III-Determining The Measures Needed To Document The Curriculum (Outputs)

The chart on the following page identifies the curriculum components as:

INPUTS	PLAN	OUTPUTS
Program Statement and Need Assessment Data, Establishing the Job Family Cluster and Analyzing Tasks To Create Competencies.	Creating Instructional Objectives, Selecting Learning Activities, and Instructional Resources.	Developing Evaluation Techniques and Designing Effective Recordkeeping.

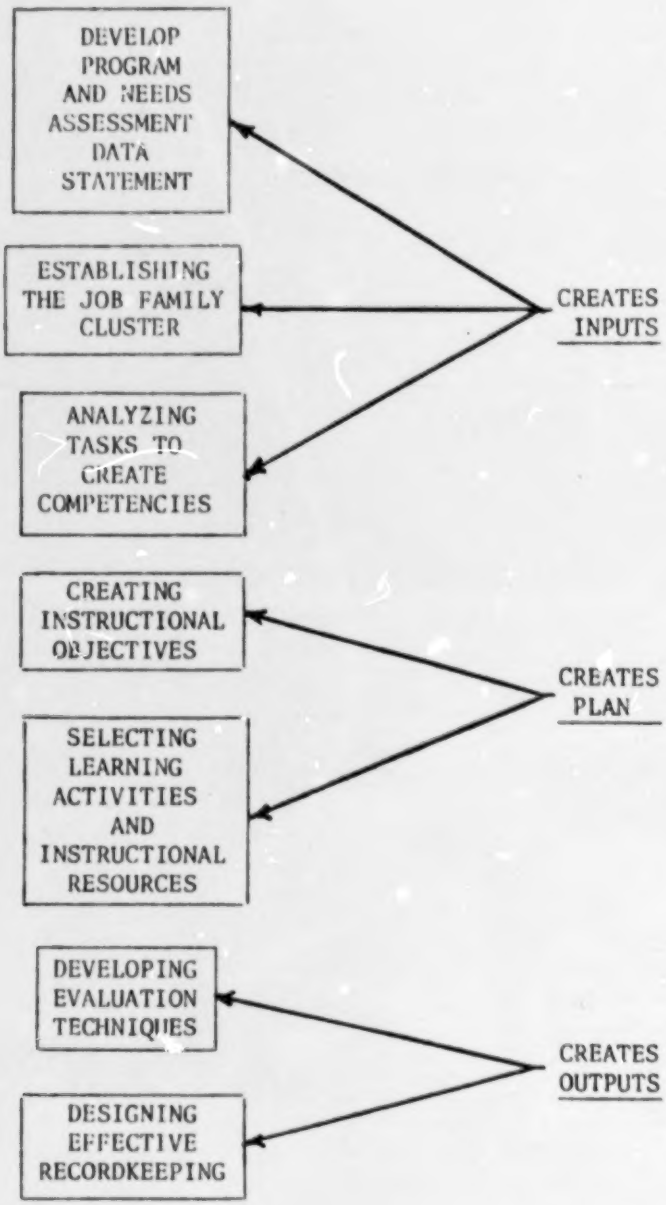
Remember as you review the definitions, directions for development of each curriculum component, and the examples contained in the Guide, that the supplemental Manual containing further detailed information on the process is available through your vocational director.

THE CURRICULUM PUZZLE



THE COMPETENCY BASED VOCATIONAL CURRICULUM

COMPONENTS AND PROCESS

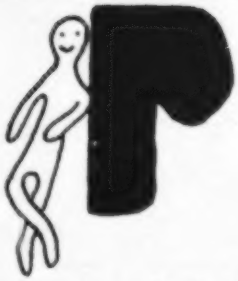


PART 1 - Components needed prior to constructing the curriculum (INPUT).

PART 2 - Components needed to construct the curriculum (PLAN).

PART 3 - Components needed to measure and document the curriculum (OUTPUT).

DEVELOP PROGRAM AND NEEDS ASSESSMENT DATA STATEMENT



Definitions:

Program Statement - A general description of the program which should include the program title, location, occupational goals, and activities students will be expected to achieve.

Needs Assessment Data - Identification of the need for the program. This could include data on jobs, students, and avaiable facilities.

Directions:

The Program and Needs Assessment Data Statement should be written in paragraph form. The statement must contain:

1. School and program title.
2. A brief description of the program's value to the students and the community.
3. Facilities - staffing information that reflects a quality program.
4. What students can achieve in the program.
5. Who is responsible for keeping the program current with community employment needs and how is this accomplished?
6. Other information you might feel is valuable to the student, parent, or others seeking program information.

Example: PROGRAM AND NEEDS ASSESSMENT DATA STATEMENT

Region #XYZ Vocational Center offers a two year automotive services program to Junior and Senior students of any High School in the region. Students are provided equal access to a safe environment consisting of an automotive laboratory equipped with the latest automotive repair tools and test equipment. The program is taught by experienced certified instructors. The curriculum makes every effort to continuously reflect the student's and the community's needs in automotive occupations.

Students entering the auto mechanics program receive the theoretical and practical skills required for each occupation considered to have employment opportunities in the automotive field in the region. Each student is also encouraged to develop the work attitudes considered necessary to succeed in the job.

The skills included in the program are regularly reviewed to reflect current technology. Surveys of potential employment needs and skill requirements for job entry are made by a program craft advisory committee annually. A recent committee study confirms that 50-75 auto mechanic or related positions are estimated to be available within a fifty mile radius of the XYZ Vocational Center in the next five years. Current student enrollment is adequate to fill the estimated needs. Each student successfully completing the competencies required in the program is provided help in obtaining suitable job placement.

See Manual pages 9-11 for further information.

ESTABLISHING THE JOB FAMILY CLUSTER

Definition:

Job Family Clustering - Identifying and selecting the occupations in an instructional program area through the use of occupational titles and descriptions contained in the Dictionary of Occupational Titles (D.O.T.) and having a common skill base.

Directions:

1. Identify all potential occupational titles for your program from the latest Dictionary of Occupational Titles (D.O.T.). Be sure to record D.O.T. title and number.

2. Relate all identified occupations to the Needs Assessment Data on jobs, students, and available facilities developed previously.

3. Select only the occupations your Needs Assessment Data suggest should be included in the program.

4. Rewrite job list in order of complexity from simplest to most complex. Many lists will have low, middle, and upper entry occupations.

5. Using the latest U.S. Office of Education booklet, Vocational Education and Occupations, identify the program number used for each of your selected occupational titles.

6. Review the example that follows. This example should further describe these directions.

Example: JOB FAMILY CLUSTER - Automotive Services

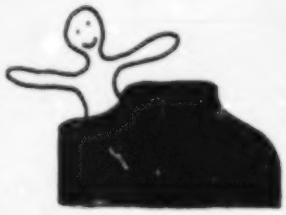
	Occupational Title	D.O.T. Number	U.S.O.E. Number
1.	Service Station Attendant	915.467-010	17.0399
2.	Tire Repairer	915.684-010	17.03
3.	Lubrication Servicer	915.687-018	17.03
4.	Auto Washer	919.687-014	17.03
5.	Service Station Mechanic	620.261-010	17.03
6.	Brake Repairer	620.281-026	17.0303
7.	Auto Parts Clerk	222.367-042	17.03
8.	Front End Mechanic	620.281-038	17.0303
9.	Tune-Up Specialist	620.281-066	17.0303
10.	Auto Electrician	825.281-022	17.03
11.	Apprentice Mechanic	620.261-012	17.03
12.	Transmission Mechanic	620.281-062	17.0303
13.	Air Conditioning Mechanic	620.281-010	17.01
14.	Mechanical Maintenance Supervisor	638.131-026	17.03

See Manual pages 12-22 for further information.

Example: JOB FAMILY CLUSTER - Business Office Occupations

	Occupational Title	D.O.T. Number	U.S.O.E. Number
1.	Typist	203-582-066	14.0902
2.	File Clerk	206-362-010	14.0302
3.	General Office Clerk	209.562-010	14.0303
4.	Receptionist	237.367-038	14.0406
5.	Transcription Machine Operator	203.582-058	14.0399
6.	Bookkeeper Clerk	210.382-014	14.0102
7.	Secretary-Clerk	201.362-030	14.0799

ANALYZING TASKS TO CREATE COMPETENCIES



Definitions:

Occupational Tasks - A task is a unit of work that is composed of a series of activities with a common purpose that occur in close sequence. Tasks, when combined, make up a total job responsibility of an occupation.

Learning Competencies - A series of occupational tasks that have been rewritten to describe an educational program's requirements to demonstrate mastery of skills, knowledge, or attitudes of an occupation.

Directions:

1. Select the most complex occupation in the Job Family you have created in your cluster.
2. Make a list of the major duties of the occupation.
3. Break each duty into the tasks or competencies required by a totally trained worker in this occupation.
4. Relate this list to all other occupations in the Job Family.
5. If other occupations have additional tasks, include these in your list.

Example: TASK OR COMPETENCY STATEMENTS - Automotive Services

Automotive Mechanic

DUTY	TASKS OR COMPETENCIES
Service Automotive Exhaust Systems	1. Inspects exhaust manifold surfaces and seats for corrosion. 2. Visually inspects for cracked manifolds. 3. Removes and replaces exhaust pipe. 4. Removes and replaces muffler. 5. Removes and replaces tail pipe. 6. Checks for proper heat riser system. 7. Removes and replaces heat riser.

Example: TASK OR COMPETENCY STATEMENTS - Business Office Occupations

Secretary - Clerk

DUTY	TASKS OR COMPETENCIES
Perform All Filing Requirements	1. Sorts files -- by number -- by name -- by topic or subject -- by city, state, or region -- by date -- by sound (soundex) -- handles cross references 2. Updates files -- revises files -- transfers records to inactive files -- disposes of unnecessary records 3. Accounts for and maintains incoming/outgoing files -- checks out materials from files to employees -- searches for lost files -- follows-up released materials 4. Retrieves material from files -- specific (individual) material -- collection of materials

See Manual pages 23-29 for further information.

CREATING INSTRUCTIONAL OBJECTIVES

Section D - Instructional Objectives

Definitions:

Instructional Objective - A statement describing an instructor's intentions by denoting performance or behavior which a student must demonstrate when she/he has successfully completed a learning experience. Instructional objectives are usually written at two levels:

a. Terminal Objective - A statement that specifies what the student's performance will be at the conclusion of instruction.
b. Interim Objective - A statement of performance(s) required of the student in the process of achieving the terminal objectives.

Directions:

1. Utilizing each competency listed previously, rewrite the competency in an interim objective statement that has the audience, the behavior or performance required, the conditions under which the student will accomplish the objective, and the degree of quality and/or quantity required to be successful.
2. Write the series of interim objective in terminal objective(s) that reflects the total learning to be achieved in each interim objective.

Example: CREATING INSTRUCTIONAL OBJECTIVES

AUTOMOTIVE SERVICES - Exhaust System Unit Objectives

Terminal Objective

Each student, when given instruction, tools, and an automobile; will inspect the automobile, list and order parts needed, and install new parts in vehicle exhaust system according to manufacturer's specification with 100% no leaks.

Interim Objectives

1. Each student will name the parts and describe their purpose in the exhaust system.
2. Each student describes the potential malfunctions and the repair or replacement procedure for the following parts.
   a. manifolds
   b. exhaust pipes
   c. muffler
   d. tail pipe
   e. heat riser
3. Each student will demonstrate, to the instructor's satisfaction, the proper ordering of one or more exhaust system replacement parts.
4. Given an automobile with a noise in the muffler, the student will replace the muffler within one hour without objective noise or exhaust leak.
5. Given an automobile requiring a new tail pipe, the student will replace the manifold pipe "system tight" within the instructor established time.
6. Given an automobile with a defective manifold or heat riser, the student will replace or repair the parts to efficient operating procedures, as determined by the instructor.

See Manual pages 31-49 for further information.

Example: CREATING INSTRUCTIONAL OBJECTIVES

BUSINESS AND OFFICE OCCUPATIONS - Filing Unit Objectives

Terminal Objective

Given lists of requested business records and a series of filing systems, the student will sort, update, retrieve, chargeout and identify the appropriate file system.

Interim Objectives

Given four sample business records, each student will prepare and file in an alphabetic, numeric, subject or geographic system or combination thereof.

Given one or more requests for records, each student will prepare requisitions, and retrieve and charge out records to the instructor's satisfaction.

Given sample charge out records and/or a tickler file, the student will describe or demonstrate follow-up procedures acceptable to the instructor.

SELECTING LEARNING ACTIVITIES AND INSTRUCTIONAL RESOURCES

Definitions:

Learning Activities - Educational procedures designed to stimulate learning by the student's first-hand experience, observation, experiment, inquiry, exercise, and discussion necessary to achieve an instructional objective.

Instructional Resources - Media and/or human support the student can anticipate from the instructor to carry out the learning activities.

Directions:

1. Using each interim objective previously written identify the learning activities the student will use to achieve competency of the objective.
2. List all instructional resources necessary to support the learning activities to be carried out by the student.

Example: SELECTING LEARNING ACTIVITIES AND INSTRUCTIONAL RESOURCES

Automotive Services - Exhaust System Unit

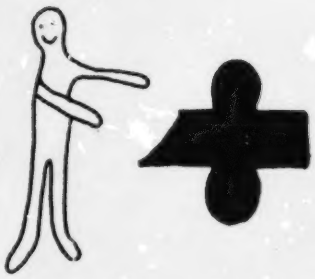
Objective (paraphrased)	Learning Activities (for student)	Instructional Resources (provided by Instructor)
#1 Name Parts	Text Assignment	Select Assignment
#2 Describe Malfunctions	Discussion Demonstration Live Work	Lead Discussion Make Parts Available Select Work
#3 Order Form	Review Catalogs Study Terminology Fill Out Sample Order Form	Provide Catalogs Vocational List Provide Order Forms
#4 Muffler	Live Work	Select Live Work
#5 Tail Pipe	Live Work	Select Live Work
#6 Manifold or Heat Riser	Live Work	Select Live Work

Example: SELECTING LEARNING ACTIVITIES AND INSTRUCTIONAL RESOURCES

Business and Office Occupations - Filing Unit

Objective (paraphrased)	Learning Activities (for student)	Instructional Resources (provided by Instructor)
#1 Filing Systems	Text Assignment Discussion on Filing Hands on Activity-Filing	Select Assignment Lead Discussion Demonstrate Filing System Prepare Sample Files
#2 Prepare Requisitions, Retrieve, and Charge Out	Text Assignment Review Sample Requisitions Prepare a Requisision and Charge Out a Record	Select Assignment Demonstrate Requisitions Provide Sample
#3 Follow-up Procedures	Participate in Discussion on Follow-up Describe Follow-up on a Procedure Sheet	Lead Discussion Prepare Procedure Sheet

See Manual pages 50-61 for further information.



Definition:

Evaluation - The process of determining or judging the value of work or work product by use of a standard of appraisal as determined in the instructional objective.

Direction:

1. Using the instructional objective and the selected learning activities determine the appropriate evaluation method for measuring student mastery of each objective.

   Your selected evaluation methods must be directly related to the objectives.

Example: DEVELOPING EVALUATION TECHNIQUES

Evaluation-Automotive Services - Exhaust System Unit

	Objective (paraphrased)	Evaluation (paraphrased)
#1	Name Parts	Written or Oral Test
#2	Describe Malfunctions	Teacher Observation
#3	Order Form	Written Test and/or Completed Order Form
#4	Muffler	Procedure Checklist
#5	Tail Pipe	Procedure Checklist
#6	Heat Riser	Procedure Checklist

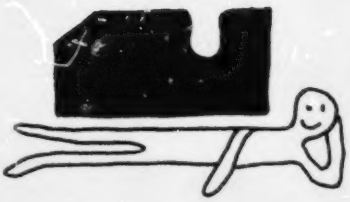
Example: DEVELOPING EVALUATION TECHNIQUES

Evaluation-Business and Office Occupations - Filing Unit

	Objective (paraphrased)	Evaluation (paraphrased)
#1	Filing Systems	Student Work Samples Written Test
#2	Prepare Requisitions	Teacher Observation Test Project
#3	Follow-up Procedures	Written Test

See Manual pages 63-71 for further information.

DESIGNING EFFECTIVE RECORDKEEPING



Definition:

The recording of the student's continuous progress in achieving mastery of the objectives.

Directions:

1. Design a system that is easily read by all interest groups.

   Information required would be program and student's name, completion dates and lists of objectives or competencies (usually paraphrased) level of proficiency, instructor's name and possibly a place for instructor's initials or signature indicating acceptance of the students' completion of each objective.

Example #1: RECORDKEEPING - Auto Services

Auto Mechanics

Vocational Program

Name _____ Social Sec. No. _____

Days class met _____ Days attended _____

Total hours of class _____ Total hrs. attended _____

Certified by _____ Date _____
Instructor

_____ Date _____
Director

The following items are rated by the instructor, based on his/her observation of the students performance in their vocational program

Responds to supervision
Poorly Quite well Willingly

Work Habits
Careless Acceptable Orderly

Dress
Seldom appropriate Usually appropriate appropriate

Cares for tools & equipment
Poorly Adequately Very well

Works well with others
Seldom Usually Always

Initiative
Needs constant supervision Needs little supervision looks for extra work

Promptness
Seldom prompt Usually prompt prompt

Responsibility
Not very reliable Usually reliable reliable

Limited	Moderate	Skilled	Proficiencies
☐	☐	☐	Practices shop safety
☐	☐	☐	Selects and uses tools properly
☐	☐	☐	Performs chassis lubrication
☐	☐	☐	Performs tire and wheel services
☐	☐	☐	Performs approved safety inspections
☐	☐	☐	Repairs exhaust systems
☐	☐	☐	Performs engine tune-ups
☐	☐	☐	Performs brake system service
☐	☐	☐	Performs front suspension and steering system service
☐	☐	☐	Makes component replacements
☐	☐	☐	Performs electrical system repairs
☐	☐	☐	Performs fuel system repairs
☐	☐	☐	Exhibits diagnostic skills
☐	☐	☐	Makes precision measurements

L = Limited skill

..... Does simple parts of task using the required tools, but requires additional instruction and close supervision.

M = Moderate skill

... Requires help on some parts, but can select and use most tools and special equipment needed. Knows most procedures and can perform with moderate supervision and help.

S = Skilled

.... Understands operating principles and accomplishes all parts of task with a minimum of supervision. Is steadily developing speed and accuracy.

See Manual pages 72-78 for further information.

Example #2: RECORDKEEPING - Auto Services

PERFORMANCE SKILLS PROFILE

STUDENT'S NAME _____ PROGRAM: VOCATIONAL AUTO SERVICES
YEAR OF GRADUATION _____ DATE TRANSMITTED: _____

LEVEL OF PROFICIENCY

- Student not acquainted with job
- Student acquainted with job - limited skill
- Student can perform job under close supervision
- Student can perform job with minimum supervision
- Student has job-entry performance skills

Engine and Engine Accessories

SELECTED INDIVIDUAL TASKS:

1. Install fan belt
2. R & R starters & switches
3. Replace thermostats
4. R & R distributors & adjust timing
5. Remove & install radiators
6. R & R water pumps
7. Inspect & service exhaust emission controls
8. Install anti-freeze
9. R & R radiator hoses
0. Complete valve job
1. R & R engine
2. Overhaul block assembly
3. Diagnose-rebuild distributor
4. Battery-diagnose
5. Inspect-R & R-rebuild gen. - alt.
6. Adjust R & R regulator
7. Diagnose-R & R fuel pump
8. R&R-rebuild carburetor 1-2-4 barrell
9. Service PCV-emission control
0. Diagnose starter system rebuild starter
1. Inspect-service cooling system
2. Perform minor tune-up
3. Perform major tune-up
4. Remove & replace heater hoses

Chassis other than Engine

1. Clean, pack and adjust front wheel bearings
2. Balance wheels & tires
3. R & R ball joints
4. Replace tie rod ends
5. Lubricate chassis
6. Change oil
7. Change oil filter
8. Check & adjust tire air pressure
9. Check water level in radiator
10. Check water level in battery
11. Change & repair tires
12. Inspect-repair front suspension
13. Inspect - adjust steering box
14. Inspect R & R shock absorbers
15. Align front end
16. Inspect & replace fuel line
17. Inspect brake system
18. R & R-rebuild master & wheel cylinder
19. Replace brake shoes
20. R & R hoses & lines bleed
21. Service brake drums discs
22. Service disc brake
23. Inspect power braking system
24. Inspect power steering ren
25. Inspect - service exhaust system

Power Train

1. Service universal joints
2. Overhaul clutch assembly
3. R & R rebuild standard transmission
4. R & R adjust axles & bearings
5. Inspect & adjust differential

Body accessories

1. Install wiper blades
2. Install light bulbs & fuses
3. Check & add washer sol.
4. Replace flasher & bulbs
5. Service or replace heater components
6. Service gauges and indicators
7. Service windshield wipers
8. Inspect-service wiring

Body

1. Adjust doors, hoods, trunks, latches
2. Straighten minor dents
3. Patch rust holes

General knowledge

1. Wash outside of auto
2. Clean inside of auto
3. Initiate & complete repair orders
4. Initiate requests for parts
5. Repair & maintain shop equipment
6. Perform State inspection

Engine Theory

1. How an engine is constructed
2. How and why an engine operates
3. Theory of engine lubrication
4. Theory of cooling system
5. Theory of the fuel system
6. Theory of the cranking motor
7. Theory of the charging circuit
8. Battery construction and service
9. Engine testing
10. Engine trouble shooting
11. Engine service (valves)
12. Engine service (pistons and rods)
13. Engine service (crankshaft & block)
14. Fuel system service
15. Lubricating system service
16. Cooling system service
17. Electric system service (ignition)
18. Electric system service (start)
19. Electric system service (charging)

Chassis Theory

1. Steering system theory
2. Theory of automotive brakes
3. Brake system service
4. Steering and suspension service
5. Tires and tire service

Power Train

1. Theory of standard transmissions
2. Clutch theory
3. Clutch service
4. Rear axle service
5. Rear axle and differential theory

General knowledge

1. How to size nuts and bolts
2. How to read and interpret manuals, charts, etc.
3. How to use and read micrometers and dial indicators
4. New Hampshire State inspection theory

WORK HABITS

ATTENDANCE & PUNCTUALITY: Consider frequency of absences as well as lateness	Record is Excellent	Occasionally Absent/late	Frequently Absent/late	Undependable: Absent/late Without notice
ATTITUDE: Consider his attitude toward his work, classmates and his willingness to work with and for others	Unusually fine attitude	Good Attitude	Passable	Poor Attitude
JUDGMENT & INITIATIVE: Consider his ability to make decisions and to utilize working time to best advantage	Justifies utmost confidence	Applies himself well	Needs frequent checking	Cannot be relied upon: needs constant supervision
RELIABILITY: Consider the ability of the person to get the work done, and to follow job through to completion	Can always be counted upon	Generally can be counted on	Unpredictable	Unable to learn
FLEXIBILITY & ADAPTABILITY: Consider the amount of instruction required to teach new skills, uniformity of work, use of hand tools and equipment	Learns fast	Learns Reasonably fast	Slow to learn	Unable to learn
SAFETY CONSCIOUSNESS: Consider appearance, care of materials, tools, equipment and work area, conform to work standards	Decidedly Favorable	Good	Passable	Generally Unsatisfactory

Example: RECORDKEEPING - Office Occupations - Secretarial

PERFORMANCE SKILLS PROFILE

STUDENT'S NAME _____
YEAR OF GRADUATION _____

PROGRAM: SECRETARIAL OFFICE PROCEDURES
DATE TRANSMITTED: _____

LEVEL OF PROFICIENCY:

- [1] Student acquainted with job--limited skill
- [2] Student can perform job under close supervision
- [3] Student can perform job with minimum supervision
- [4] Student has job-entry performance skills

Basic Typewriting Procedures

SELECTED INDIVIDUAL TASKS:
1. Operate:
   - IBM Selectric
   - IBM Standard
   - IBM Selectric II
   - IBM Executive
   - Adler Electric
2. Proper handling
3. Selects supplies

Letter Production Techniques

1. Letter parts
2. Proper margins
3. Punctuation forms
4. Letter styles
5. Envelopes
6. Erasures
7. Proofreading
8. Mailable letters from:
   - straight copy
   - rough draft
9. Stationery

Mail Services

1. Classify mail
2. Parcel specifications
3. Special services
4. Postage
5. Incoming mail
6. Outgoing mail
7. ZIP codes
8. Special service notations
9. Bulk mail regulations

Telegraph

1. Correct service
2. Word count
   - domestic
   - international
3. Systems
4. Special services
5. Various international services

Typewriting Production Pbms.

1. Centering
2. Manuscripts, reports
3. Outlines
4. Footnotes
5. Bibliographies
6. Labels
7. Half-spacing
8. Fill-ins
9. Justify
10. Financial reports
11. Legal documents
12. Duplicating masters
13. Stencils
14. Offset masters
15. Copies needed
16. 4-page program using stylii

Dictation & Transcription

1. Shorthand
   - fluency
   - speed
   - clarity
2. Transcription skills
   - vocabulary
   - spelling
   - letter placement
   - mailability
   - typing speed
   - figures
   - reference books

Telephone

1. Techniques
2. Incoming calls
3. Local outgoing calls
4. Long distance calls using DDD
5. Long distance calls using operator
6. Transferring calls
7. Directory
8. Courtesy
9. Speech
10. Efficiency
11. PBX switchboard
12. Multi-button switchboard
13. Special telephone services

Filing Rules

1. Alphabetic filing
   - individual
   - firm
   - special
2. Subject filing
   - subject division
   - subject numeric
3. Numeric filing
   - terminal-digit
4. Geographic
5. Chronological filing

Duplicating Processes

1. Fluid duplicating
2. Stencil duplicating
3. Offset duplicating
4. Copier

Office Machines

1. 10-key adding listing
2. Full keyboard
3. Electronic calculator
4. Rotary calculator
5. Collator
6. Folding machine

Travel & Transportation

1. Various travel services
   - domestic
   - international
2. Expense reports
3. Itineraries
4. Reservations
5. Travel funds

Filing Procedures

1. Routine
2. Familiar with:
   - filing supplies
   - equipment
   - charge-out
   - disposal of old files
   - storage of data
3. Systems

Internal Communications

1. Set up written comm.
2. Within a company
3. Between branches

Transcribing Machines

1. Operate
2. Mailable copy

Writing Business Letters

1. Compose business letters
2. Complete form letters

Work Experience

1. _____
2. _____
3. _____
4. _____
5. _____

Payroll System

1. Basis of payment
2. Records of time
3. Figuring hours worked
4. Figuring gross pay
5. Deductions
6. Computing net pay
7. Employees earnings rcd.
8. Payroll journal
9. Disbursing payroll

WORK HABITS

ATTENDANCE & PUNCTUALITY: Consider frequency of absences as well as latenesses	Record is Excellent	Occasionally Absent/Late	Frequently Absent/Late	Undependable: Absent/Late Without Notice
	☐	☐	☐	☐
ATTITUDE: Consider his attitude toward his work, company & associates, and his willingness to work with and for others	Unusually Fine Attitude	Good Attitude	Passable	Poor Attitude
	☐	☐	☐	☐
JUDGMENT & INITIATIVE: Consider his ability to make decisions and to utilize working time to best advantage	Justifies Utmost Confidence	Applies Himself Well	Needs Frequent Checking	Cannot be relied upon; Needs constant supervision
	☐	☐	☐	☐
RELIABILITY: Consider the ability of the person to get the work out under pressure, and to follow job through to completion	Can always be counted upon	Generally can be counted on	Unpredictable	Seldom reliable under pressure
	☐	☐	☐	☐
FLEXIBILITY & ADAPTABILITY: Consider the speed with which he learns and the amount of instruction required to teach him new duties	Learns Fast	Learns Reasonably Fast	Slow to Learn	Unable to Learn
	☐	☐	☐	☐
SAFETY CONSCIOUSNESS: Consider appearance, "housekeeping," conform to work standards	Decidedly Favorable	Good	Passable	Generally Unsatisfactory
	☐	☐	☐	☐

SUMMARY

If you have taken time to carefully review each component of this Guide, you are now ready to make some decisions about your curriculum!

First and foremost, of course, is the question...DOES MY CURRICULUM CONTAIN ALL THE COMPONENTS THAT HAVE BEEN REVIEWED IN THE GUIDE?

Please note again that the style you have chosen for your program may not be assembled in the same way as the examples provided in each component. This is not necessary. Your program should, however, be developed on the basis of these components. If you do not agree, it is suggested that you discuss your concerns with your vocational director or immediate supervisor before making any further decisions about possible changes in your curriculum.

Remember, this Guide is the result of considerable study by a small group of New Hampshire teachers and administrators! You may find your school suggests or requires a certain style for assembling the curriculum. In some cases, additional components, such as lesson or unit plans, sample instructional units, or bibliographies may be required.

Consult your director or immediate supervisor for ANSWERS TO SPECIFIC QUESTIONS.

Before meeting with your director, it might be helpful to complete the check list that follows.

CURRICULUM COMPONENT CHECKLIST

	YES	NO
Does my program contain the suggested inputs?		
1. Description of program and current job needs in the local, regional and possibly national employment market. (Developing Program Statement And Needs Assessment Data)	☐	☐
2. Titles and possibly job descriptions of selected occupations for which students can be trained in the program. (Establishing The Job Family Cluster)	☐	☐
3. A list of competencies students will be responsible for in the instructional program. (Analyzing Tasks To Create Competencies)	☐	☐
Does my program contain the suggested instructional plan?		
4. Terminal and interim objectives on which the instructional program is based. (Creating Instructional Objectives)	☐	☐
5. Alternative learning activities and resources that can be used by students to carry out the program objectives. (Selecting Learning Activities And Instructional Resources)	☐	☐
Does my program contain the suggested outputs?		
6. A list of evaluation methods related to the instructional objectives. (Developing Evaluation Techniques)	☐	☐
7. Student progress and/or readiness record. (Designing Effective Recordkeeping)	☐	☐

When you have completed the checklist and discussed it with your Vocational Director or Supervisor, and if you have decided to improve any component of your curriculum, obtain a copy of How To Develop A Curriculum For Vocational Education - A Manual for New Hampshire's Vocational Educators.

The manual should provide you with details of each component not contained in this guide.

GOOD LUCK!